

L Number	Hits	Search Text	DB	Time stamp
1	1	("20020125580").PN.	USPAT; US-PGPUB	2004/08/16 19:47
2	949	257/686.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:51
3	88	(257/686.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:37
4	1	6593662.URPN.	USPAT	2004/08/16 19:58
5	7	("5323060" "5719745" "5910682" "6005778" "6215193" "6297547" "6472758").PN.	USPAT	2004/08/16 19:58
6	599	438/107.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:47
7	75	(438/107.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:30
8	74	((438/107.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)) not ((257/686.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:37
9	802	257/777.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:41
10	82	(257/777.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:47
11	82	(257/777.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:41
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13	1413	257/723.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:41
14	100	(257/723.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:47
15	70	((257/723.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)) not ((257/686.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2004/08/16 20:41

16	83	((257/723.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)) not (((257/777.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)) not ((257/686.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:48
17	53	((257/723.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)) not ((257/686.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)) not (((257/777.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)) not ((257/686.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:42
18	341	438/109.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:47
19	43	(438/109.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:52
20	27	((438/109.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)) not ((438/107.ccls. and (@ad<20010301)) and ((plate or pad or interposer) with adhesive))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:48
21	253	361/790.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:52
22	10	(361/790.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:53
23	236	361/735.ccls. and (@ad<20010301)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:52
24	4	(361/735.ccls. and (@ad<20010301)) and ((plate or pad or interposer or standoff) with adhesive)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/08/16 20:53



wrap

wrap (rəp) *verb*

wrapped or wrapt (rɒpt) *wrapping, wraps verb, transitive*

1. To arrange or fold (something) about as cover or protection: *She wrapped her fur coat closely about herself.*
2. To cover, envelop, or encase, as by folding or coiling something about: *wrapped my head in a scarf.*
3. To enclose, especially in paper, and fasten: *wrap a package; wrapped up the peelings.*
4. To clasp, fold, or coil about something: *She wrapped her arms about his neck.*
5. To envelop and obscure: *Fog wrapped the city.*
6. To surround or involve in a specified quality or atmosphere: *The plan was wrapped in secrecy.*
7. To engross: *She was wrapped in thought.*

verb, intransitive

1. To coil or twist about or around something: *The flag wrapped around the pole.*
2. To put on warm clothing. Usually used with *up*.
3. To conclude filming: *The movie is scheduled to wrap next week.*


noun

1. A garment to be wrapped or folded about a person, especially an outer garment such as a robe, cloak, shawl, or coat.
2. A blanket.
3. A wrapping or wrapper.
4. The completion of filming on a movie.

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23 entries found for **plate**. The first 10 are listed below.
To select an entry, click on it. For more results, [click here](#).

plate[1,noun]	▲	Go
plate[2,transitive verb]	▲	
blue plate	▲	
cell plate	▲	
end plate	▲	
equatorial plate	▼	

Main Entry: **plate** 

Pronunciation: 'plAt

Function: *noun*

Etymology: Middle English, from Old French, from *plate*, feminine of *plat* flat, from (assumed) Vulgar Latin *plattus*, probably from Greek *platys* broad, flat -- more at PLACE

1 a : a smooth flat thin piece of material **b (1) :** forged, rolled, or cast metal in sheets usually thicker than 1/4 inch (6 millimeters) **(2) :** a very thin layer of metal deposited on a surface of base metal by plating **c :** one of the broad metal pieces used in armor; *also* : armor of such plates **d (1) :** a lamina or plaque (as of bone or horn) that forms part of an animal body; *especially* : SCUTE **(2) :** the thin under portion of the forequarter of beef; *especially* : the fatty back part -- see BEEF illustration **e :** HOME PLATE **f :** any of the large movable segments into which the earth's lithosphere is divided according to the theory of plate tectonics

2 [Middle English; partly from Old French *plate* plate, piece of silver; partly from Old Spanish *plata* silver, from (assumed) Vulgar Latin *platta* metal plate, from feminine of *plattus* flat] **a** *obsolete* : a silver coin **b :** precious metal; *especially* : silver bullion

3 [Middle English, from Middle French *plat* dish, plate, from *plat* flat] **a :** domestic hollowware made of or plated with gold, silver, or base metals **b :** a shallow usually circular vessel from which food is eaten or served **c (1) :** a quantity to fill a plate : PLATEFUL **(2) :** a main course served on a plate **(3) :** food and service supplied to one person <a dinner at \$10 a *plate*> **d (1) :** a prize given to the winner in a contest **(2) British :** a horse race in which the contestants compete for a prize of fixed value rather than stakes **e :** a dish or pouch passed in taking collections **f :** a flat glass dish used chiefly for culturing microorganisms

4 a : a prepared surface from which printing is done **b :** a sheet of material (as glass) coated with a light-sensitive photographic emulsion **c (1) :** the usually flat or grid-formed anode of an electron tube at which electrons collect **(2) :** a metallic grid with its interstices filled with active material that forms one of the structural units of a battery **d :** LICENSE PLATE


5 : a horizontal structural member that provides bearing and anchorage especially for the trusses of a roof or the rafters


6 : the part of a denture that fits to the mouth; *broadly* :

DENTURE

7 : a full-page illustration often on different paper from the text pages

8 : a schedule of matters to deal with <have a lot on my *plate* now>

- **plate·ful**  /-ˈfʊl/ *noun*

- **plate·like**  /-ˈlɪk/ *adjective*

Find what: 28

Find Next

Cancel

Match case

Area: ☐ All ☐ Up ☐ Down ☐ Left ☐ Right

Match word: ☐ Whole ☐ Part

Look in: ☐ Grid ☐ Diagrams



US 20

United States

Patent Application Publication (10) Pub. No.: US 2001/0008306

Kamel et al. (43) Pub. Date: Jul. 19, 2001

LAMINATE TYPE SEMICONDUCTOR APPARATUS (57)

ABSTRACT

Inventors: Shigeki Kamel, Oita (JP); Saeko Takagi, Oita (JP)

Correspondence Address:
Ronald P. Kananen, Esq.
RADER, FISHMAN & GRAUER
The Lion Building
1233 20th Street, N.W., Suite 501
Washington, DC 20036 (US)

Assignee: Sony Corporation

Appl. No.: 09/760,825

Filed: Jan. 17, 2001

Foreign Application Priority Data

15, 2000 (JP) F2000-006534

Publication Classification

Int. Cl. H01L 23/34

U.S. Cl. 257/723

A laminate-type semiconductor apparatus utilizing substrate being mounted with a plurality of semiconductor devices, in which the laminate-type semiconductor apparatus is free from incurring heat-radiation problem, fully leveled connection parts with sufficient strength whereby distinctively compatible with high mounting thereof. More particularly, the present invention provides a laminate-type semiconductor apparatus comprising a foldable flexible substrate mounted with a plurality of laminated semiconductor devices in which the foldable flexible substrate is folded at a plurality of semiconductor-device mounting areas of substrate are mutually superposed whereby forming structure of semiconductor-device mounting area. An externally connected terminal disposing area with a plurality of externally connected terminals on one surface thereof. In addition, a reinforcing member is secured to the side of the externally connected terminal disposing area via a material portion (adhesive agent) stress relaxing function. Further, a heat-radiating member is secured onto a surface on the opposite side from the externally connected terminal disposing area.

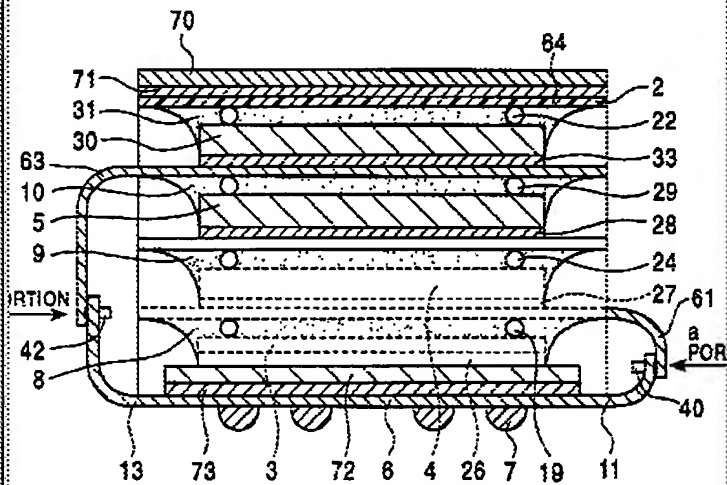
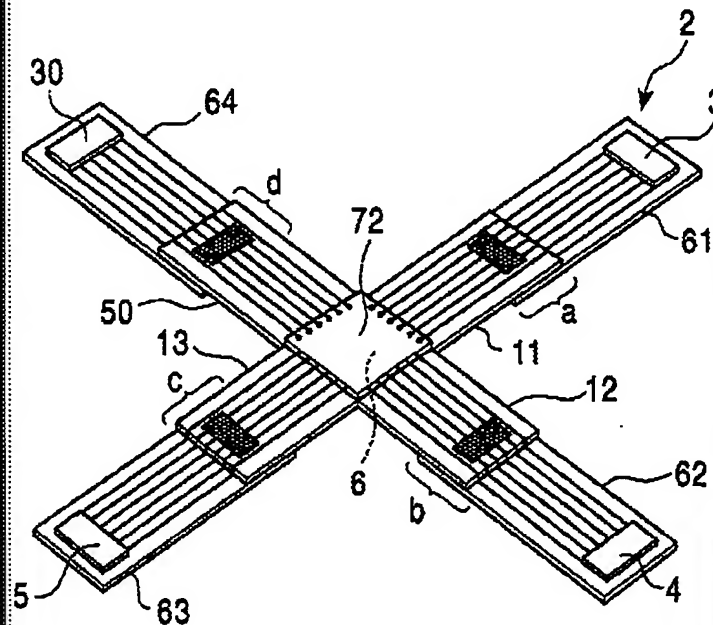


Fig 1

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FIG. 2



second-device mounting area for mounting the second device 4 is designated by reference code 62. The third-device mounting area for mounting the third device 5 is designated by reference code 63.

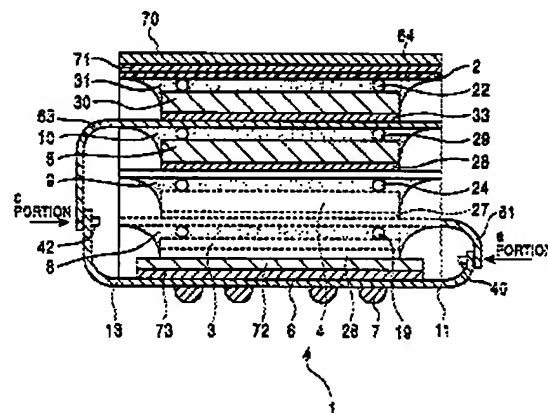
The fourth-device mounting area for mounting the fourth device 30 is designated by reference code 64. Back surface (the upper surface of FIG. 1) of an externally connected terminal disposing area 6 shown in FIG. 2 is arranged to accommodate a stress-relaxing material such as a gelled adhesive agent 73, for example. The gelled adhesive agent functioning as a stress-relaxing material also serves to adhere a reinforcing plate 72 to be described later on. When using the gelled adhesive agent for relaxing stress, a highly viscose adhesive agent containing silicon can be introduced, and yet, it is also possible to use such an adhesive agent having analogous physical property. Further, it is also possible to use "die-bond" adhesive film generating viscosity at a high temperature for relaxing stress, which draws attention of the concerned as a substitute for "die-bond" Ag paste and has been put into practical use. Further, it is also possible to use such a material composed of elastomer for relaxing stress. The above-referred externally connected terminal disposing area 6 is fitted with a plurality of externally connected terminals 7 outside of the semiconductor apparatus shown in FIG. 1 (bottom side in FIG. 1).

[0032] Referring to a summarized development view shown in FIG. 2, details of the semiconductor apparatus according to the embodiment of the present invention will be described below. A plurality of electrode pads are formed on the part of a surface on which a circuit comprising the first device 3, the second device 4, the third device 5, and the fourth device 30, is formed. Further, a plurality of projected electrodes (bumps) 19 are formed on the above-referred electrode pads (refer to FIG. 1). The first device 3, the second device 4, the third device 5, and the fourth device 30, are respectively disposed in the prone posture, i.e., in the facedown posture. These four devices are electrically connected to externally conductive lands of a wiring substrate disposed below the first, second, third, and the fourth devices 3, 4, 5, and 30, and yet, mechanically linked with each other. Junction portions are filled with under-film material such as a film material comprising epoxy resin, for example.

[0033] The semiconductor-device mounting

Parent Application Publication Jul. 19, 2001 Sheet 1 of 4 US 2001/0008306 A1

FIG. 1





US 20

United States

Patent Application Publication (10) Pub. No.: US 2001/0008306

Kamei et al. (43) Pub. Date: Jul. 19

LAMINATE TYPE SEMICONDUCTOR APPARATUS

(57)

ABSTRACT

Inventors: Shigeki Kamei, Oita (JP); Saeko Takagi, Oita (JP)

Correspondence Address:

Ronald P. Kananen, Esq.
RADER, FISHMAN & GRAUER
The Lion Building
1233 20th Street, N.W., Suite 501
Washington, DC 20036 (US)

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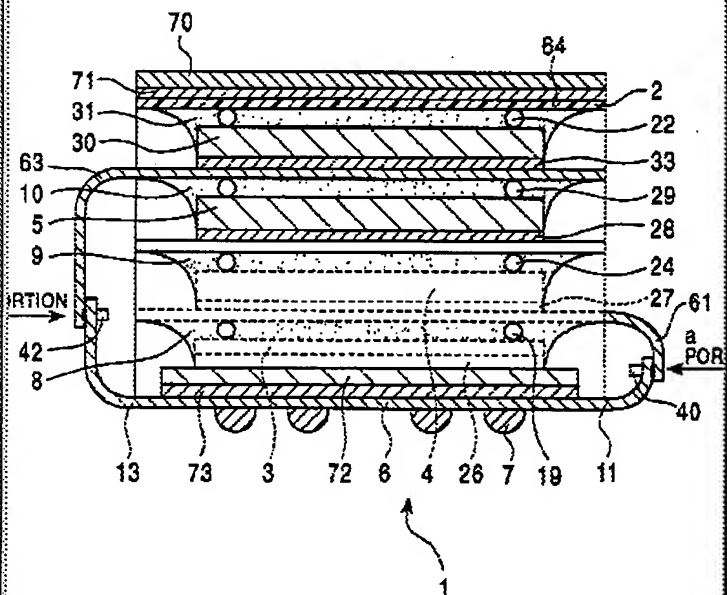
18, 2000 (JP) P2000-008534

Publication Classification

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U.S. Cl. 257/723

A laminate-type semiconductor apparatus utilizing substrate being mounted with a plurality of semiconductor devices, in which the laminate-type semiconductor apparatus is free from incurring heat-radiation problem fully leveled connection parts with sufficient strength whereby distinctively comparable with his mounting thereof. More particularly, the present provides a laminate-type semiconductor apparatus comprises a foldable flexible substrate mounting plurality of laminated semiconductor devices in which the foldable flexible substrate is folded a plurality of semiconductor-device mounting areas of substrate are mutually superposed whereby forming structure of semiconductor-device mounting area. An externally connected terminal disposing area with a plurality of externally connected terminals on one surface thereof. In addition, a reinforcing secured to the side of the externally connected disposing area via a material portion (adhesive agent stress relaxing function). Further, a heat-radiating secured onto a surface on the opposite side from externally connected terminal disposing area.



the first device 3 are respectively disposed on the back-surface-side (upper portion in FIG. 1) of the externally connected terminal disposing area 6 by a folding process. In specific, the first-device mounting area 61 and the first-device wiring distributing area 11 are respectively adhered via a highly-viscose gelled adhesive agent 26 being prominent in relaxing stress spread on the upper surface of the reinforcing plate 72 secured on the back surface of the externally connected terminal disposing area 6. In particular, the back surface of the pronely disposed (down-faced) first device 3 is adhered to the area 6. At the same time, the chip parts 40 and 42 (a chip resistor and a chip capacitor, for example) are disposed on the lateral surface of the folded portion. In the same way, the second device 4, the third device 5, and the fourth device 30 discretely being bonded onto substrates are stacked with each other on a level surface. These three elements are sequentially folded in the direction of the back surface of the externally connected terminal disposing area 6 (in the upper direction), which are then adhered and three-dimensionally laminated. In FIG. 1, reference code 8 designates the first-device mounting area adhered with the first device 3. Reference code 9 designates the second-device mounting area adhered with the second device 4. Reference code 10 designates the third-device mounting area adhered with the third device 5. Reference code 31 designates the fourth-device mounting area adhered with the fourth device 30. Reference numerals 27, 28, and 33 respectively designate insulating adhesive agents such as highly-viscose gelled adhesive agents used for adhesion of the second device 4, the third device 5, and the fourth device 30.

[0042] Next, a radiating plate having thermally radiating property such as a copper plate, for example, is bonded on the uppermost polyimide substrate 2 with an adhesive agent 71 having satisfactory thermal conductivity. By virtue of the provision of the radiating plate 70, heat generated by the first device